ARTIFICIAL INTELLIGENCE

(CSC 462)

LAB # 13

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CLASS & SECTION: BSSE-5A

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Lab Task :

Create a knowledge base which defines your family tree and make a query that uses application of modus ponens to derive a fact which is not explicitly elaborated in the knowledge base.

Code:

pro1.pl

```
parent(ali, abdullah).
parent(sara, aimen).
parent(ali, amna).
parent(sara, abdullah).

married(X, Y):- parent(X, Z), parent(Y, Z), X\=Y.

siblings(X, Y):- parent(C, X) ,parent(C, Y), X\=Y.
```

Compiler:

SWI-Prolog (Multi-threaded, version 8.0.2)

File Edit Settings Run Debug Help

```
Welcome to SWI-Prolog (threaded, 32 bits, version 8.0.2)
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.
Please run ?- license. for legal details.

For online help and background, visit http://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?- siblings (abdullah, aimen).
ERROR: Syntax error: Operator expected
ERROR: siblings
ERROR: ** here **
ERROR:  (abdullah, aimen) .
?- siblings(aimen, abdullah).
true.

?- siblings(ali, sara).
false.

?- married(ali,sara).
true
```